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Notice of Allowability	Application No.	Applicant(s)	
	10/643,253	HEPNER ET AL.	
	Examiner	Art Unit	
	John H. Le	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/14/2005 and 10/24/2005.
2. ☒ The allowed claim(s) is/are 1,4-8,10-15,17,19 and 21-28.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Response to Amendment

1. Applicant's amendment filed 10/14/2005 and 10/24/2005 have been entered and carefully considered.

Claims 1, 4, 8, 13, 17, and 23 have been amended.

Claims 2, 3, 9, 16, 18, and 20 have been cancelled.

Examiner's Amendment

2. 2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Ido Tuchman on 10/28/2005.

The applicant has been amended as follows:

Claim 19, line 1, "The computer program product of claim 18" has been changed to --The computer program product of claim 17--.

Claim 23, line 2, "the method" has been changed to --the system--.

Reasons for Allowance

3. Claims 1, 4-8, 10-15, 17, 19, 21-28 are allowed.

4. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, none of the prior art of record teaches or suggests the combination of a method for predicting the failure of an electronic circuit in an electronic

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device, wherein the method comprising steps of: receiving a measured value for current draw of the electronic circuit from at least one voltage supply; receiving at least one measured value for an environmental condition, wherein the environmental condition includes an environment temperature; monitoring at least one operating condition of the electronic circuit; wherein the operating condition includes a CPU utilization level; determining if the measured current draw is outside a pass range for the measured environmental condition and for the operating condition or the electronic circuit. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 4, none of the prior art of record teaches or suggests the combination of a method for predicting the failure of an electronic circuit in an electronic device, wherein the method comprising steps of: receiving a measured value for current draw of the electronic circuit from at least one voltage supply; receiving at least one measured value for an environmental condition, wherein the environmental condition includes an environment temperature; monitoring at least one operating condition of the electronic circuit; wherein the operating condition includes a clock frequency; determining if the measured current draw is outside a pass range for the measured environmental condition and for the operating condition or the electronic circuit. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 8, none of the prior art of record teaches or suggests the combination of a system for predicting the failure an electronic circuit, the system comprising: a current monitor configured to receive a measured value for a current draw to the electronic circuit from at least one voltage source; an environment monitor configured to receive a measured value for at least one environmental condition of the electronic circuit, wherein the at least one environmental condition includes an environment temperature; a circuit state monitor configured to determine at least one operating condition of the electronic circuit, wherein the at least one operating condition includes a CPU utilization level; and a failure alert unit configured to provide an alert notification when the current draw to the electronic circuit is outside a pass range at the measured environmental condition and the measured operating condition of the electronic circuit. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 13, none of the prior art of record teaches or suggests the combination of a method for manufacturing an electronic circuit, wherein the method comprising: assembling the electronic circuit; measuring a current draw of the electronic circuit at different environment conditions and operating conditions, wherein the different environmental conditions include an environment temperature; monitoring the current draw of significant circuit functions; and recording the current draw in an operating matrix, the operating matrix configured to be used during normal operation of the electronic circuit to alert when the current draw to the electronic circuit is outside a pass

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range at the measured environmental condition. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 17, none of the prior art of record teaches or suggests the combination of a computer program product embodied in a tangible media comprising: computer readable program codes coupled to the tangible media for predicting the failure of an electronic circuit in an electronic device, the computer readable program codes configured to cause the program to: measure a current draw of the electronic circuit from at least one voltage supply; measure at least one environmental condition at the electronic circuit, wherein the at least one environmental condition includes an environment temperature; monitor at least one operating condition of the electronic circuit; wherein the operating condition includes a clock frequency; determine if the measured current draw is outside a pass range for the measured environmental condition and the operating condition of the electronic circuit. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 23, none of the prior art of record teaches or suggests the combination of a system for predicting the failure of an electronic circuit in an electronic device, the system comprising: means for receiving a measured value for current draw of the electronic circuit from at least one voltage supply; means for receiving at least

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one measured value for an environmental condition wherein the at least one environmental condition includes an environment temperature; means for monitoring at least one operating condition of the electronic circuit, wherein the operating condition includes a clock frequency; means for determining if the measured current draw is outside a pass range for the measured environmental condition and the operating condition of the electronic circuit; and means for alerting of a potential failure of the electronic circuit if the measured current draw is outside the pass range. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John H. Le whose telephone number is 571 272 2275. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on 571 272 2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John H. Le

Patent Examiner-Group 2863

October 28, 2005

BRYAN BUI
PRIMARY EXAMINER

